LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL SERVICES

STATEMENT OF BASIS[1]

PROPOSED PART 70 OPERATING PERMIT 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Consolidated Environmental Management Inc
Consolidated Environmental Management, Inc. - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest (AI) No. 157847
Activity Numbers: PER20080001 / PER20080002

I. APPLICANT

The applicant is: Consolidated Environmental Management Inc - Nucor Steel Louisiana
1915 Rexford Rd
Charlotte, North Carolina 28211

Facility: Nucor Steel Louisiana

SIC Code: 3312

Location: Hwy LA-3125
Convent, St. James Parish, Louisiana
Latitude 30° 5' 49", Longitude 90° 50' 38"

II. PERMITTING AUTHORITY

The permitting authority is: Louisiana Department of Environmental Quality
Office of Environmental Services
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313

III. CONTACT INFORMATION

Additional information may be obtained from:

Mr. Kermit C. Witttenburg
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313
Phone: (225) 219-3181

IV. FACILITY BACKGROUND AND CURRENT PERMIT STATUS

[1] 40 CFR 70.7(a)(5) and LAC 33:III.531.A.4 require the permitting authority to "provide a statement that sets forth the legal and factual basis for the proposed permit conditions of any permit issued to a Part 70 source, including references to the applicable statutory or regulatory provisions."

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Consolidated Environmental Management, Inc.- Nucor Steel Louisiana (Nucor) is proposing to construct a greenfield facility intended for the production of pig iron. This facility will use the blast furnace process to produce high quality pig iron. Nucor plans for the mill to reach an anticipated peak annual production rate of six million metric tonnes of iron. The basic raw materials for the pig iron production process are iron ore, in lump or pellet form; coal; sinter; and flux, which may be limestone, dolomite, or electric arc furnace slag. The facility will process the coal into metallurgical-grade coke for use in the blast furnaces, at dedicated coke ovens on the site. The blast furnaces themselves are closed units with virtually no atmospheric emissions. The coke ovens follow the heat recovery design. A sinter plant will also be constructed at the site to recycle fine materials and dusts for increased raw material efficiency. By recovering heat from the coking process and combusting blast furnace gas in multiple boilers, the mill will produce enough electricity to completely provide for facility usage and also provide some electrical export to the public utility grid.

The basic raw materials of the blast furnace process will be received by ship, barge, and rail, with additional supplies and materials being delivered by truck. Pig iron produced at the facility will be stored on-site in outdoor storage piles. The iron will be loaded onto trucks or rail cars and transported to the Mississippi River dock for shipment to customers by ship or barge. Coke fines from the coke handling areas will ship to customers, primarily by barge. Granulated slag and slag aggregate from the slag granulation area are proposed to be shipped to customers by barge or rail. Pulverized slag from the slag granulation/milling area will be shipped to customers, primarily by truck. FGD dust from the coke plant and the sinter plant will be shipped to a landfill, primarily by truck.

In the coke production process, coal is subjected to high heat in a battery of ovens, with the object of thermally cracking the organic compounds in the coal, leaving only pure carbon, simple carbon compounds, and remaining ash in the resulting coke. During the coking process, the volatile fractions of the coal are liberated and are collectively known as coke oven gas. The gas is ducted from the oven chamber into the refractory oven walls and sole flues beneath the chamber, where combustion of the gas is completed. Nucor will utilize a non-recovery design of coke ovens, instead of the more historically typical byproduct recovery ovens. In either design, the process of liberating the volatile fraction of the coal is done in an oxygen-deprived atmosphere. In the non-recovery oven design, the coal volatiles are oxidized within the ovens by the addition of combustion air and incinerated by the intense heat. The heat of combustion is released within the oven system, allowing non-recovery ovens to be self-sufficient with respect to energy. Non-recovery ovens are operated at a negative pressure, which results in no system leaks around oven doors and other interfaces.

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

The coke production process consists of the following production steps:

- Coal Preparation: coal from the storage piles is crushed, screened, wetted, and mixed in the coal preparation area. The coal is then pressed into the shape of a large brick by hydraulic presses. The coal bricks will then be transported by a rail-mounted charging car to an oven for charging.
- Coal Charging is where a pusher machine drives the coal into the oven.
- Coke Ovens: There will be two batteries of coke ovens with each battery containing 140 ovens. A coking cycle will last approximately fifty-four hours. Heat from the hot refractory in the oven begins the carbonization of the coal, and normally no external fuel is required once the ovens have reached operating temperature. The flue gas system routes the hot gases to heat recovery steam generators (HRSGs). These HRSGs produce high-pressure steam that will be routed to the steam turbine generators.
- Coke Pushing: At the end of each coking cycle, doors on the ends of the oven are opened and the hot coke is pushed from the oven by a ram which is extended from a pusher car. A mobile, flat quench car receives the hot coke. The quench car travels by rail, carrying the coke to the coke quench tower.
- Coke Quenching: The coke from the coke oven will be positioned beneath one of the coke quench towers. There is one quench tower for each coke oven battery. At the quench tower, the hot coke is deluged with water to prevent it from burning with exposure to the air. The hot steam generated from quenching is channeled by natural draft up the quench tower. Baffles in the tower structure help to retain as much of the cooling water as possible. Cooling water from the quenching process is collected beneath the quench car, filtered, and reused.
- Coke Handling and Storage: The quenched coke is discharged onto an inclined coke wharf to allow the coke to drain and cool before a conveyor belt carries it to a crushing and screening system. The sized coke is then transported by conveyor to the Stock House for storage. Emissions from the coke screening and crushing facilities are controlled by a baghouse.

The blast furnace is a counter-current reactor in the form of a tall, shaft-type furnace where iron-bearing materials (such as iron ore and sinter) are reduced to iron (pig iron or hot metal). A typical burden feed consists of iron ore pellets, coke, sinter, and flux materials such as limestone or dolomite. The burden material is charged into the top of the furnace and slowly descends as hot metal is removed from the bottom. Hot metal is withdrawn from the furnace and separated into molten iron and slag in the cast house.

Blast furnace gas is collected from ducts at the top of the furnace. This gas contains a large fraction of carbon monoxide generated by the iron making reaction, as well as a sizeable fraction of hydrogen. After exiting the blast furnace, the blast furnace gas (topgas) passes through a cyclone dust catcher and dust removal system, followed by a wet scrubber

system. Topgas is combusted in the hot blast stoves in order to heat the incoming blast air. Remaining topgas is burned as a fuel in power boilers to generate steam. The high pressure steam produced in the boilers will be used in steam turbines connected to electric generators. The electricity produced will likely be greater than the total site electrical requirements, and a portion may be transmitted to the public utility power grid.

This will be the initial Part 70 permit for the Nucor Steel Louisiana.

These permits address all emissions unit at the Nucor Steel Louisiana facility.

Permit No.	Process Unit	Date Issued
2560-00281-V0	Nucor Steel Louisiana	Proposed
PSD-LA-740	Nucor Steel Louisiana	Proposed

V. PROPOSED PERMIT/PROJECT INFORMATION

A permit application and Emission Inventory Questionnaire (EIQ) dated May 12, 2008, were received requesting a Part 70 operating permit for the Nucor Steel Louisiana facility. The application was deemed administratively complete in accordance with LAC 33:III.519.A on May 14, 2008.

Pursuant to LAC 33:III.519.A.4, a notice of the completeness determination was published in The Enterprise, Vacherie, Louisiana, on June 10, 2008.

Additional information dated Additional information dated August 6, 2008, August 7, 2008, August 8, 2008, August 11, 2008, August 12, 2008, August 13, 2008, August 25, 2008, August 26, 2008, September 24, 2008, October 1, 2008, December 24, 2008, January 6, 2009, and February 18, 2009 were also received. This permit is based on a complete resubmittal of the modeling protocol dated March 12, 2009 and a complete resubmittal of the application dated June 26, 2009 with supplemental information received January 27, 2010 and February 8, 2010..

Process Description

Nucor Steel Louisiana is proposing to construct a greenfield facility dedicated to the production of pig iron. The mill will produce high-quality iron units necessary for the production of top-grade sheet steels. High-quality top-grade sheet steels cannot be made from scrap material alone. The new mill will center around the molten iron (hot metal) production of two identical blast furnaces, with an expected production rate of three million metric tonnes per year of iron for each blast furnace.

Proposed Modifications

Permit 2560-00281-V0 will be the initial Part 70 operating permit for the Nucor Steel

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Louisiana facility. Permit No. PSD-LA-740 will be the Prevention of Significant Deterioration Permit for the Nucor Steel Louisiana facility.

VI. ATTAINMENT STATUS OF PARISH

Pollutant	Attainment Status	Designation
$PM_{2.5}$	Attainment	N/A
PM_{10}	Attainment	N/A
SO_2	Attainment	N/A
NO_2	Attainment	N/A
CO	Attainment	N/A
Ozone[2]	Attainment	N/A
Lead	Attainment	N/A

VII. PERMITTED AIR EMISSIONS

Sources of air emissions are listed on the "Inventories" page of the proposed permit.

Estimated emissions of criteria pollutants from the facility, in tons per year (TPY), are as follows:

Pollutant	Before	After	Change
PM_{10}	0.00	696.60	+696.60
SO_2	0.00	3,781.87	+3,781.87
NO_X	0.00	3,791.83	+3,791.83
CO	0.00	29,394.48	+29,394.48
VOC	0.00	401.97	+401.97

PM_{10} and VOC compounds classified as LAC 33:III.Chapter 51-regulated toxic air pollutants (TAP) are speciated below. This list encompasses all Hazardous Air Pollutants (HAP) regulated pursuant to Section 112 of the Clean Air Act. Note, however, all TAPs are not HAPs (e.g., ammonia, hydrogen sulfide).

LAC 33:III. Chapter 51 Metallic Toxic Air Pollutants (TAPs):

Pollutant	Emissions (TPY)
Antimony & Compounds	0.012
Arsenic & Compounds	0.100
Barium & Compounds	0.032

[2] VOC and NO_X are regulated as surrogates.

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

LAC 33:III. Chapter 51 Metallic Toxic Air Pollutants (TAPs):

Pollutant	Emissions (TPY)
Beryllium & Compounds	0.003
Cadmium & Compounds	0.10
Chromium VI & Compounds	0.054
Cobalt & Compounds	< 0.01
Copper & Compounds	0.208
Lead & Compounds	0.375
Manganese & Compounds	0.038
Mercury & Compounds	0.289
Nickel & Compounds	0.089
Selenium & Compounds	0.022
Silver & Compounds	< 0.01
Zinc & Compounds	2.35

LAC 33:III. Chapter 51 Volatile Organic Compounds TAPs:

Pollutant	Emissions (TPY)
Acetonitrile	0.16
Acrolein	0.18
Acrylonitrile	0.79
Benzene	56.05
Bromomethane (Methyl Bromide)	0.98
Bromoform	< 0.01
Chlorobenzene	< 0.01
Chloroform	0.03
Chloromethane (Methyl Chloride)	1.35
Cumene	< 0.01
Cyanide	1.11
1,4-Dioxane	0.28
Dioxins/Furans	< 0.001
Ethyl Benzene	< 0.01
n-Hexane	0.022
Methanol	0.14
Methyl-ethyl-ketone (2-Butanone)	0.33
Methyl-isobutyl ketone (4-Methyl-2-Pentanone)	0.336
Methyl Tert-Butyl Ether (MTBE)	0.022
Methylene Chloride (Dichloromethane)	1.18
Methyl Methacrylate	0.31
Naphthalene	0.51

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Pollutant	Emissions (TPY)
PAHs (Polynuclear Aromatic Hydrocarbons)	5.21
Phenol	11.73
Styrene	0.10
1,1,2,2-Tetrachloroethane	0.14
Toluene	1.02
1,1,1-Trichloroethane	< 0.01
1,1,2-Trichloroethane	< 0.01
Vinyl Acetate	0.28
Xylene	0.032
LAC 33:III. Chapter 51 Other TAPs:	
Ammonia	20.69
Carbon Disulfide	0.03
Hydrochloric Acid	0.15
Hydrofluoric Acid	0.08
Total TAPs (Metallic, VOC and Other)	106.91

Nucor Steel Louisiana is a major source of criteria pollutants, a major source of HAPs, and a major source of TAPs.

Permitted limits for individual emissions units and groups of emissions units, if applicable, are set forth in the tables of the proposed permit entitled "Emission Rates for Criteria Pollutants" and "Emission Rates for TAP/HAP & Other Pollutants." These tables are part of the permit.

Emissions calculations can be found in Appendix C of the permit application dated September 2009 with additional calculations for $PM_{2.5}$ from Attachment 3 of the January 2010 additional information. The calculations address the manufacturer's specifications, fuel composition (e.g., sulfur content), emissions factors, and other assumptions on which the emissions limitations are based and have been reviewed by the permit writer for accuracy.

General Condition XVII Activities

Very small emissions to the air resulting from routine operations that are predictable, expected, periodic, and quantifiable and that are submitted by the applicant and approved by the Air Permits Division are considered authorized discharges. These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. However, such emissions are considered when determining the facility's potential to emit for evaluation of applicable requirements. Approved General Condition XVII activities are noted in Section VIII of the proposed permit.

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Insignificant Activities

The emissions units or activities listed in Section IX of the proposed permit have been classified as insignificant pursuant to LAC 33:III.501.B.5. By such listing, the LDEQ exempts these sources or types of sources from the requirement to obtain a permit under LAC 33:III.Chapter 5. However, such emissions are considered when determining the facility's potential to emit for evaluation of applicable requirements.

VIII. REGULATORY APPLICABILITY

Regulatory applicability is discussed in three sections of the proposed permit: Section X (Table 1), Section XI (Table 2), and Specific Requirements. Each is discussed in more detail below.

Section X (Table 1): Applicable Louisiana and Federal Air Quality Requirements

Section X (Table 1) summarizes all applicable federal and state regulations. In the matrix, a "1" represents a regulation applies to the emissions unit. A "1" is also used if the emissions unit is exempt from the emissions standards or control requirements of the regulation, but monitoring, recordkeeping, and/or reporting requirements apply.

A "2" is used to note that the regulation has requirements that would apply to the emissions unit, but the unit is exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified, or reconstructed since the regulation has been effective. If the specific criterion changes, the emissions unit will have to comply at a future date. Each "2" entry is explained in Section XI (Table 2).

A "3" signifies that the regulation applies to this general type of source (e.g., furnace, distillation column, boiler, fugitive emissions, etc.), but does not apply to the particular emissions unit. Each "3" entry is explained in Section XI (Table 2).

If blank, the regulation clearly does not apply to this type of emissions unit.

Section XI (Table 2): Explanation for Exemption Status or Non-Applicability of a Source

Section XI (Table 2) of the proposed permit provides explanation for either the exemption status or non-applicability of given federal or state regulation cited by 2 or 3 in the matrix presented in Section X (Table 1).

Specific Requirements

Applicable regulations, as well as any additional monitoring, recordkeeping, and reporting requirements necessary to demonstrate compliance with both the federal and state terms and conditions of the proposed permit, are provided in the "Specific Requirements" section. Any operating limitations (e.g., on hours of operation or throughput) are also set forth in this section. Associated with each Specific Requirement

is a citation of the federal or state regulation upon which the authority to include that Specific Requirement is based.

1. Federal Regulations

40 CFR 60 – New Source Performance Standards (NSPS)

The following subparts are applicable at the Nucor Steel Louisiana Facility: A, and Y. Applicable emission standards, monitoring, test methods and procedures, recordkeeping, and reporting requirements are summarized in the "Specific Requirements" section of the proposed permit.

Portions of the coal receiving and processing for the Coke Oven Batteries are subject to NSPS Subpart Y.

40 CFR 61 – National Emission Standards for Hazardous Air Pollutants (NESHAP)

No NESHAP provisions are applicable to the Nucor Steel Louisiana Facility.

40 CFR 63 – Maximum Achievable Control Technology (MACT)

The following subparts are applicable at the Nucor Steel Louisiana Facility: A, L, CCCCC, and FFFFF. Applicable emission standards, monitoring, test methods and procedures, recordkeeping, and reporting requirements are summarized in the "Specific Requirements" section of the proposed permit.

Sources associated with the Coke Oven Batteries are subject to NESHAP L.

Additional operations associated with the Coke Oven Batteries are subject to NESHAP CCCCC. This includes the Coal Charging, Coke Pushing, and the Coke Quenching operations. Sinter Operations are subject to NESHAP FFFFF.

The various operations are designed to maximize the collection of exhaust materials for reuse within the plants operations. This includes collecting fine and processing them in the Sinter plant for reuse within the plant or for export to other types of commercial operations. Blast furnace exhaust gases will be collected and combusted to produce electricity for internal use.

By letter dated July 25, 2008, Nucor Corporation, on behalf of its subsidiary Consolidated Environmental Management Inc., requested a determination that the proposed Nucor Steel Louisiana's coke oven charging and pushing arrangements will comply with the requirements for 40 CFR 63 Subpart L and CCCCC.

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Upon review of the information supplied in the request, the regulatory language and associated NESHAP preambles and additional information made available to the Department, LDEQ has determined that the coke charging and pushing arrangements will be capable of complying with the requirements of 40 CFR 63 Subpart L and CCCCC.

BACT was determined to be Compacted Coal as an Inherently Lower Polluting Process or Practice, as described in Section IV.A.3 of USEPA's New Source Review Workshop Manual published in October, 1990. Therefore, a Permit Shield will be granted that compliance with the emission limitation requirement shall not be determined by the procedures in 40 CFR 63.309(k). This requires the facility to conduct a performance test of the charging operation using 40 CFR 60 Appendix A, Methods 1 through 5. These tests require a ventilation stack, which will not exist at the Nucor facility. Compliance shall be determined with other applicable procedures described in 40 CFR 63.309(a) through (m) and 40 CFR 63.7300(a).

One requirement from Subpart CCCCC is as follows: "Make monthly inspections of capture systems according to 40 CFR 63.7300(c)(1) and record all information needed to document conformance with these requirements. Subpart CCCCC §7335(b)(1)." This requirement shall be modified to include the additional identified requirement: "BACT has been determined that the 'capture system' is compacted coal pushed onto a traveling flat car. Inspections shall include visual observations of the pushed coke to ensure that the compacting system allows the pushed coke to retain its cohesive mass."

Clean Air Act §112(g) or §112(j) – Case-By-Case MACT Determinations

A case-by-case MACT determination pursuant to §112(g) or §112(j) of the Clean Air Act was not required.

40 CFR 64 – Compliance Assurance Monitoring (CAM)

Per 40 CFR 64.2(a), CAM applies to each pollutant-specific emissions unit (PSEU) that 1) is subject to an emission limitation or standard, 2) uses a control devices to achieve compliance, and 3) has potential pre-control device emissions that are equal to or greater than 100 percent of the amount, in TPY, required for a source to be classified as a major source.

The following emissions units are subject to CAM: EQT0021, EQT0046, EQT0049 and EQT0052. Applicable CAM provisions have been incorporated into the proposed permit as Specific Requirements 551 – 563, 596 – 608, 642 – 654, and 743 - 754.

Acid Rain Program

The Acid Rain Program, 40 CFR Part 72 – 78, applies to the fossil fuel-fired combustion

devices listed in Tables 1-3 of 40 CFR 73.10 and other utility units, unless a unit is determined not to be an affected unit pursuant to 40 CFR 72.6(b). LDEQ has incorporated the Acid Rain Program by reference at LAC 33:III.505. Nucor Steel Louisiana Facility is not subject to the Acid Rain Program.

2. SIP-Approved State Regulations

Applicable state regulations are also noted in Section X (Table 1) of the proposed permit. Some state regulations have been approved by the U.S. Environmental Protection Agency (EPA) as part of Louisiana's State Implementation Plan (SIP). These regulations are referred to as "SIP-approved" and are enforceable by both LDEQ and EPA. All LAC 33:III.501.C.6 citations are federally enforceable unless otherwise noted.

3. State-Only Regulations

Individual chapters or sections of LAC 33:III noted by an asterisk in Section X (Table 1) are designated "state-only" pursuant to 40 CFR 70.6(b)(2). Terms and conditions of the proposed permit citing these chapters or sections are not SIP-approved and are not subject to the requirements of 40 CFR Part 70. These terms and conditions are enforceable by LDEQ, but not EPA. All conditions not designated as "state-only" are presumed to be federally enforceable.

State MACT (LAC 33:III.Chapter 51)

Nucor Steel Louisiana facility is a major source of LAC 33:III.Chapter 51 regulated TAP. The owner or operator of any major source that emits or is permitted to emit a Class I or Class II TAP at a rate equal to or greater than the Minimum Emission Rate (MER) listed for that pollutant in LAC 33:III.5112 shall control emissions of that TAP to a degree that constitutes Maximum Achievable Control Technology (MACT), except that compliance with an applicable federal standard promulgated by the U.S. EPA in 40 CFR Part 63 shall constitute compliance with MACT for emissions of toxic air pollutants. Applicable Part 63 standards are addressed in Section VIII.1 of this Statement of Basis. MACT is not required for Class III TAPs; however, the impact of all TAP emissions must be below their respective Ambient Air Standards (AAS).

MACT determinations were made pursuant to Chapter 51 for the following emissions units: State MACT requirements are cited as LAC 33:III.5109.A in the proposed permit.

EQT0001	Compliance with NESHAP 40 CFR 63 Subpart L has been determined to be compliance with MACT in accordance with LAC 33:III.5109.A.2.
EQT0002	Compliance with NESHAP 40 CFR 63 Subpart L and NESHAP 40 CFR 63 Subpart CCCCC have been determined to be compliance with MACT in accordance with LAC 33:III.5109.A.2
EQT0007	Compliance with NESHAP 40 CFR 63 Subpart L have been determined to be compliance with MACT in accordance with LAC 33:III.5109.A.2
EQT0008	Compliance with NESHAP 40 CFR 63 Subpart L and NESHAP 40 CFR 63 Subpart CCCCC have been determined to be compliance with MACT in

	accordance with LAC 33:III.5109.A.2
EQT0031	Compliance with NESHAP 40 CFR 63 Subpart FFFFF has been determined to be compliance with MACT in accordance with LAC 33:III.5109.A.2
EQT0032	Compliance with NESHAP 40 CFR 63 Subpart FFFFF has been determined to be compliance with MACT in accordance with LAC 33:III.5109.A.2
RLP0006	Compliance with NESHAP 40 CFR 63 Subpart CCCCC has been determined to be compliance with MACT in accordance with LAC 33:III.5109.A.2
RLP0012	Compliance with NESHAP 40 CFR 63 Subpart CCCCC has been determined to be compliance with MACT in accordance with LAC 33:III.5109.A.2

IX. NEW SOURCE REVIEW (NSR)

1. Prevention of Significant Deterioration (PSD)

The facility's source category is listed in Table A of the definition of "major stationary source" in LAC 33:III.509. As such, the PSD major source threshold is 100 TPY (of any regulated NSR pollutant).

Nucor Steel Louisiana facility is a major stationary source under the PSD program, LAC 33:III.509. The emissions increases associated with the proposed facility (without regard to decreases) are as follows:

Pollutant	Project Increase	PSD Significance Level	Netting Required?
PM_{10}	696.60	25/15 (PM/PM_{10})	Yes
SO_2	3,781.87	40	Yes
NO_X	3,791.83	40	Yes
CO	29,394.48	100	Yes
VOC	401.97	40	Yes
Lead (Pb)	0.375	0.6	No

Increases of PM/PM_{10}, SO_2, NO_X, CO, and VOC associated with the proposed project triggered a netting analysis.

Pollutant	Project Increase	Contemporaneous Change	Net Emissions Increase	PSD Significance Level	PSD Review Required?
PM_{10}	695.60	0.00	696.60	25/15 (PM/PM_{10})	Yes
SO_2	3,781.87	0.00	3,781.87	40	Yes
NO_X	3,791.83	0.00	3,791.83	40	Yes
CO	29,394.48	0.00	29,394.48	100	Yes
VOC	401.97	0.00	401.97	40	Yes

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

The proposed modifications will result in a significant net emissions increase of PM/PM_{10}, SO_2, NO_X, CO, and VOC; therefore, PSD requirements, including best available control technology (BACT), apply for these pollutants.

A list of affected emissions units, baseline actual emissions, and projected actual emissions or potential to emit for each emissions unit, as well as a summary of contemporaneous changes associated with the proposed project, can be found in Appendix A, Section 25, NSR Applicability Summary, of the permit application. This data has been reviewed by the permit writer.

BACT

Under current PSD regulations, an analysis of "top down" BACT is required for the control of each regulated pollutant emitted from a new major stationary source in excess of the specified significant emission rates. The top down approach to the BACT process involves determining the most stringent control technique available for a similar or identical source. If it can be shown that this level of control is infeasible based on technical, environmental, energy, and/or cost considerations, then it is rejected and the next most stringent level of control is determined and similarly evaluated. This process continues until a control level is arrived at which cannot be eliminated for any technical, environmental, or economic reason. A technically feasible control strategy is one that has been demonstrated to function efficiently on identical or similar processes. Additionally, BACT shall not result in emissions of any pollutant which would exceed any applicable standard under 40 CFR Parts 60 and 61.

Unit	Unit Identifiers	PM_{10} BACT	NO_x BACT	SO_2 BACT	CO BACT	VOC BACT
Blast Furnace / Hot Blast Stoves	STV-101, 102	Fuel gas cleaning with cyclone and wet scrubber	Low-NO_x fuel combustion	No feasible control technology for Blast Furnace Gas. (BFG) Limit Nat. Gas sulfur content	Good combustion practices	Good combustion practices
Cast House	CST-101, 201	Local collection hoods and fabric filter		No feasible control technology	No feasible control technology	
Coke Oven Gas	COK-111, 211	Fabric filter	Staged combustion	Low Sulfur Coal, Lime spray drying scrubber	Good combustion practices	Good combustion practices
Blast Furnace & Coke Oven	PCI-101 COK-100, 104,	Fabric filter, water suppression and enclosed				

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Unit	Unit Identifiers	PM_{10} BACT	NO_x BACT	SO_2 BACT	CO BACT	VOC BACT
Coal Prep.	204	conveyors				
Coke Oven Charging	COK-101, 201	Compacted coal, negative pressure ovens				
Coke Oven Pushing	COK-102, 202	Flat car pushing	Compacted coal and flat car pushing	Compacted coal and flat car pushing	Compacted coal and flat car pushing	Compacted coal and flat car pushing
Coke Quenching	COK-103, 203	Quench Tower Baffles and Low-TDS Water				
Slag Granulation	SLG-101, 102, 201, 202, 301, 306, 401	Water suppression of dust generating sources				
Slag Milling / Processing	SLG-302, 303, 304, 305, 402, 403, 404, 406, 407, 408,409	Fabric filters				
Diverted Air-Cooled Slag	SLG-104, 105, 106, 204, 205, 206	Wet suppression of dust generating sources				
Topgas Boilers	PWR-101- 108	Fuel cleaning with cyclone and wet scrubber	Low-NO_x fuel combustion	No feasible control technology for BFG Limit Nat. Gas sulfur content	Good combustion practices	Good combustion practices
Sinter Plant	SIN-101, 102	Collection systems and fabric filter	No feasible control technology	Lime spray drying scrubber	Good combustion practices	Counterflow injection of additives
Cooling Towers	TWR-101, 102, 103	Cellular drift eliminators and low TDS cooling water				
Storage Piles	PIL-101, 102, 103, 104, 105,	Wet suppression of dust generating				

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Unit	Unit Identifiers	PM_{10} BACT	NO_x BACT	SO_2 BACT	CO BACT	VOC BACT
Road Dust	106, 107, 108 FUG-101, 102	sources. Paved roads where practicable and reduced speed limit				
Hot Metal Handling	PIG-101, 102	Collection hood and fabric filter				
Stock House; Sinter Material Handling	SIN-103, 105, 106; STC-101, 201	Fabric filters				
Material Handling and Transfer	COK-112, 113, 212, 213, 214, 215; DOC-101, 102; DST-101, 201; FUG-103; TRN-101	Enclosed conveyors and water suppression				

Summary of proposed BACT limits and conditions.

1. The permittee is authorized to operate in conformity with the specifications submitted to the Louisiana Department of Environmental Quality (LDEQ) as analyzed in LDEQ's document entitled "Preliminary Determination Summary" dated August 1, 2009 and subject to the following emissions limitations and other specified conditions. Specifications submitted are contained in the application and Emission Inventory Questionnaire dated July 26, 2009.

MAXIMUM ALLOWABLE EMISSIONS RATES

Unit	ID No.	Description		PM_{10}	SO_2	NO_X	CO	VOC
Blast Furnace / Hot Blast Stoves	RLP015 RLP016	STV-101-Blast Furnace 1 Hot Blast Stoves Common Stack STV-201-Blast Furnace 2 Hot Blast Stoves Common Stack	lb/MM Btu BFG gr/dscf Nat. Gas gr/MMscf Specific Condition #	0.002	0.00874 2500 # 2, # 3	0.06	0.0824 # 4	0.0054 # 4
Cast House	EQT015 EQT016	CST-101- Cast House 1 Baghouse Vent CST-201- Cast House 2	gr/dscf lbs/ton hot metal	0.003[3] 0.00155	0.04		0.055	

[3]NESHAP Limit

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Unit	ID No.	Description		PM_{10}	SO_2	NO_X	CO	VOC
		Baghouse Vent						
Coke Oven Gas	RLP006 RLP012	COK-111-Coke Battery 1 Flue Gas Desulfurization Stack COK-211-Coke Battery 2 Flue Gas Desulfurization Stack	lbs/ton wet coal charged Specific Condition #	0.00863	# 2, # 3	0.71	0.05	0.0035
Blast Furnace and Coke Oven Coal Preparation	RLP013A RE001 EQT004 EQT010	PCI-101 - PCI Mill Vent COK-100 - Coke Ovens Coal Handling, Crushing, and Compacting COK-104 - Coke Battery 1 Coke Handling COK-204 - Coke Battery 2 Coke Handling	Specific Condition # lb/MM Btu	# 12	# 3 **PCI-101 only**	**PCI-101 only** 0.049	# 4 **PCI-101 only**	# 4 **PCI-101 only**
Coke Oven Charging	EQT001 EQT007	COK-101 - Coke Battery 1 Coal Charging COK-201 - Coke Battery 2 Coal Charging	lbs/ton dry coal charged	0.0081[4]				
Coke Oven Pushing	EQT002 EQT008	COK-102 - Coke Battery 1 Coal Pushing COK-202 - Coke Battery 2 Coal Pushing	lbs/ton coke pushed Specific Condition #	0.04[5] # 5	0.098 # 5	0.019 # 5	0.0638 # 5	0.077 # 5
Coke Quenching	EQT003 EQT009	COK-103 - Coke Battery 1 Coke Quench Tower COK-203 - Coke Battery 2 Coke Quench Tower	Milligrams/liter TDS	≤1100[6]				
Slag Granulation & Slag Milling	EQT036	SLG-101 - Slag Granulator 1 Granulation Tank 1	Specific Condition #	# 6				
	EQT037	SLG-102 - Slag Granulator 1 Granulation Tank 2	Specific Condition #	# 6				
	EQT038	SLG-201 - Slag Granulator 2 Granulation Tank 1	Specific Condition #	# 6				
	EQT039	SLG-202 - Slag Granulator 2 Granulation Tank 2	Specific Condition #	# 6				
	EQT040	SLG-301 - Air-Cooled Slag Processing Load Bin	Specific Condition #	# 6				

[4] LDEQ has determined that compacted coal charging technology will meet the MACT emission limitation of 0.0081lb/ton of dry coal charged, required under 40 CFR 63.303(d)(2).
[5] LDEQ has determined that flat car pushing technology will meet the MACT emission limitation of 0.04 lb of filterable PM_{10} per ton of coke pushed required under 40 CFR 63.7290.
[6] This technology will meet the MACT emission limitation of ≤ 1,100 milligrams per liter TDS concentration, required under 40 CFR 63.7295(a)(1)(i).

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Unit	ID No.	Description		PM_{10}	SO_2	NO_X	CO	VOC
	EQT041	SLG-302 - Air-Cooled Slag Processing Primary Crusher	Specific Condition #	# 6				
	EQT042	SLG-303 - Air-Cooled Slag Processing Primary Screening	Specific Condition #	# 6				
Slag Granulation & Slag Milling	EQT043	SLG-304 - Air-Cooled Slag Processing Secondary Crusher	Specific Condition #	# 6				
Slag Granulation & Slag Milling (Cont.)	EQT044	SLG-305 - Air-Cooled Slag Processing Secondary Screen	Specific Condition #	# 6				
	ARE011	SLG-306 - Air-Cooled Slag Processing Stockpiles	Specific Condition #	# 6				
	EQT045	SLG-401-Slag Mill Wet Slag Feed Bin	Specific Condition #	# 6				
	RLP014	SLG-402 - Slag Mill Dryer Stack	Specific Condition #	# 7	# 3	0.049 lbs/MM Btu.	# 4	# 4
	EQT046	SLG-403 - Slag Mill Dryer Baghouse Vent	Specific Condition #	# 7				
	EQT047	SLG-404 - Slag Mill Dry Slag Feed Bin Baghouse Vent	Specific Condition #	# 7				
	EQT048	SLG-405 - Slag Mill Crushers/Screeners Baghouse Vent	Specific Condition #	# 7				
	EQT049	SLG-406 - Slag Mill Building Baghouse Vent	Specific Condition #	# 7				
	EQT050	SLG-407 - Slag Mill Transfer Points Baghouse Vent	Specific Condition #	# 7				
	EQT051	SLG-408 - Slag Mill Product Silo Baghouse Vent	Specific Condition #	# 7				
	EQT052	SLG-409 - Slag Mill Loading Collector Baghouse Vent	Specific Condition #	# 7				

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Unit	ID No.	Description		PM_{10}	SO_2	NO_X	CO	VOC
Blast Furnace Slag Pits	ARE005 ARE006 ARE007 ARE008 ARE009 ARE010	SLG-104 - Blast Furnace 1 Slag Pit 1 SLG-105 - Blast Furnace 1 Slag Pit 2 SLG-106 - Blast Furnace 1 Slag Pit 3 SLG-204 - Blast Furnace 2 Slag Pit 1 SLG-205 - Blast Furnace 2 Slag Pit 2 SLG-206 - Blast Furnace 2 Slag Pit 3	Specific Condition #	# 8				
Topgas Boilers	EQT023 EQT024 EQT025 EQT026 EQT027 EQT028 EQT029 EQT030	PWR-101 - Topgas Boiler No. 1 PWR-102 - Topgas Boiler No. 2 PWR-103 - Topgas Boiler No. 3 PWR-104 - Topgas Boiler No. 4 PWR-105 - Topgas Boiler No. 5 PWR-106 - Topgas Boiler No. 6 PWR-107 - Topgas Boiler No. 7 PWR-108 - Topgas Boiler No. 8	gr/dscf lb/MM Btu Specific Condition #	0.007	# 2, # 3	0.092	0.0824 # 4	0.0054 # 4
Sinter Plant	EQT031	SIN-101 - MEROS System Vent Stack	lbs/ton finished sinter gr/dscf	0.3[7] 0.002	0.437	0.495	17.942	0.0945
	EQT032	SIN-102 - Sinter Plant Main Dedusting Baghouse Vent	lbs/ton finished sinter gr/dscf gr/dscf	0.0036 0.005 0.01[8]				
Cooling Towers	EQT060 EQT061 EQT062	TWR-101 - Blast Furnace Cooling Tower TWR-102 - Iron Solidification Cooling Tower TWR-103 - Air Separation Plant Cooling Tower	milligrams/liter TDS Specific Condition #	≤1100 # 9				
Storage Piles	FUG001 FUG002 FUG003 FUG004 FUG005 FUG006	PIL-101 - Coal Storage Piles PIL-102 - Iron Ore Pellet Storage Piles PIL-103 - Flux Storage Piles PIL-104 - Pig Iron Storage Piles PIL-105 - Granulated Slag Storage	Specific Condition # Specific Condition #	# 10				

[7] This emission rate is the MACT emission limitation of 0.3 lb/ton of product sinter, required under 40 CFR 63.7790(a).
[8] This is the MACT emission limitation for the discharge end and sinter cooler at a new sinter plant, required under 40 CFR 63.7790(a).

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Unit	ID No.	Description		PM_{10}	SO_2	NO_X	CO	VOC
Road Dust	FUG007 FUG008 ARE002 ARE003	Piles PIL-106 - Sinter Storage Piles PIL-107 - Coke Breeze Storage Piles PIL-108 - Mill Scale Storage Piles FUG-101 - Unpaved Road Fugitive Dust FUG-102 - Paved Road Fugitive Dust		# 11				
Hot Metal Handling	EQT021	PIG-101 - Pig Iron Desulfurization Station Baghouse Vent	lbs/ton hot metal processed	0.009				
	EQT022	PIG-102 - Pig Iron Solidification Baghouse Vent	lbs/ton hot metal processed	0.00084				
Stock House; Sinter Material Handling	EQT033E QT034 EQT035 EQT053 EQT054	SIN-103 - Coke and Petcoke Crushing Dedusting Baghouse Vent SIN-105 - Sinter FGD Lime Silo Unloading SIN-106 - Sinter FGD Waste Loading STC-101 - Stock House 1 Baghouse Vent STC-201 - Stock House 2 Baghouse Vent	Specific Condition #	# 12				
Material Handling and Transfer	EQT017 EQT018 EQT019 EQT020 ARE004 EQT059	DOC-101 - Dock 1 Loading/Unloading Gantry Crane DOC-102 - Dock 2 Loading/Unloading Gantry Crane DST-101-Blast Furnace 1 Topgas Dust Catcher DST-201-Blast Furnace 2 Topgas Dust Catcher FUG-103 - Conveyor Fugitives TRN-101 - Wagon Tipper	Specific Condition #	# 13				

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Unit	ID No.	Description		PM_{10}	SO_2	NO_X	CO	VOC
Material Handling and Transfer	EQT005 EQT006 EQT011 EQT012 EQT013 EQT014	COK-112 - Coke Battery 1 FGD Lime Silo Unloading COK-113 - Coke Battery 1 FGD Waste Loading COK-212 - Coke Battery 2 FGD Lime Silo Unloading COK-213 - Coke Battery 2 FGD Waste Loading COK-214 - Coke Bin Tower COK-215 - Coke Screening	Specific Condition #	# 12				

2. BACT is also select ed as a maximum content of 1.25% sulfur in the coal.

3. BACT for SO_2 from natural gas combustion is to purchase natural gas containing no more than 2500 grains of Sulfur per million standard cubic feet for the Blast Furnace/Hot Blast Stoves/ Top Gas Boilers.

4. BACT for CO and VOC is selected to be good combustion practices during the operation of the Blast Furnace/Hot Blast Stoves/Top Gas Boilers.

5. BACT is selected to be compacted coal and flat car pushing.

6. BACT is selected to be wet suppression of dust generating sources (slag granulation) by water sprays. This technology is inherent to the granulated slag process.

7. BACT for the granulated slag milling process is selected as collection and control by fabric filters. The bag filters will have a minimum of 99.5% control efficiency.

8. BACT is determined to be wet suppression of dust generating sources by water sprays at the slag pits after air cooling and prior to removal by a mechanical loader.

9. BACT is selected to be a combination of less than 1,100 milligrams per liter Total Dissolved Solids concentration in the cooling water and drift eliminators employing a drift maximum of 0.0005%.

10. BACT is selected to be implementation of wet suppression of dust generating sources by water sprays at each storage pile site. Roadways shall be sprayed to reduce emissions.

11. BACT for road dust is selected as paving where practicable, and roadway watering and reduced speed limit on unpaved roads.

12. BACT is selected as collection and control by fabric filters.

13. BACT is selected to be enclosed conveyors as the most stringent control option for material handling conveyors. Water sprays, wind shields or partial enclosures are additional control methods which will be employed at specific transfer, conveyance, and drop points where full enclosure is not practical. BACT for the various loading and unloading operations and similar sources is selected as collection and control by fabric filters.

    A more thorough discussion of the BACT selection process can be found in PSD-LA-740. BACT and any other associated monitoring, recordkeeping, and reporting requirements necessary to determine compliance with the PSD permit are cited as "LAC 33:III.509" in the proposed Title V permit.

Other BACT Considerations

The initial proposed permit for Nucor Steel Louisiana released on October 15, 2008, did not directly address $PM_{2.5}$. At that time, this was consistent with federal law and EPA's expectations regarding the implementation of NSR requirements for $PM_{2.5}$ based on the agency's final rule entitled "Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers ($PM_{2.5}$) (73 FR 28321, May 16, 2008).

According to the 2008 final rule, EPA is requiring states with SIP-approved PSD programs (like Louisiana) to submit revised PSD programs and revised Nonattainment NSR programs for $PM_{2.5}$ within 3 years from the date of this action (i.e., May 16, 2011). To ensure consistent administration during the transition period, EPA has elected to maintain its existing PM_{10} surrogate policy which only recommends as an interim measure that sources and reviewing authorities conduct the modeling necessary to show that PM_{10} emissions will not cause a violation of the PM_{10} NAAQS as a surrogate for demonstrating compliance with the $PM_{2.5}$ NAAQS.

Moreover, at 40 CFR 52.21(i)(1)(xi), EPA specified that if an application was determined to be complete before July 15, 2008, the $PM_{2.5}$ requirements in effect before that date (i.e., the use of PM_{10} as a surrogate for $PM_{2.5}$) shall apply to the source or modification. Nucor's application was deemed administratively complete on May 14, 2008.

However, on September 22, 2009, EPA issued a stay, until June 22, 2010, of the aforementioned grandfathering provision (74 FR 48153). Further, on February 11, 2010, EPA proposed to repeal the grandfathering provision and end the PM_{10} Surrogate Policy.

Subsequently, by letter dated September 24, 2009, EPA provided input specifically regarding Nucor Steel Louisiana's application.

> As noted in the EPA Administrator's recent petition decision in the matter of Louisville Gas and Electric Company (Petition No. IV-2008-3, August 12, 2009) we believe that permit applicants and permitting authorities should determine whether PM10 is a reasonable

> surrogate for PM2.5 under the specific facts and circumstances of specific permitting actions, and not proceed with the general presumption that PM10 is always a reasonable surrogate for PM2.5. Therefore, we believe LDEQ should ... address PM2.5 emissions directly or show how compliance with the PSD requirements for PM10 will serve as an adequate surrogate for meeting the PSD requirements for PM2.5 for this specific facility. Directly addressing PM2.5 might including determining the best available control technology (BACT) for PM2.5 and determining the proposed source's impact on currently monitored PM2.5 concentrations in relation to the current PM2.5 NAAQS.

After evaluating EPA's correspondence on the Louisville Gas and Electric Company petition response, LDEQ required Nucor to:

1. Quantify, to the extent possible, $PM_{2.5}$ emissions from each source at the proposed Nucor Steel Louisiana and provide this information, along with calculations and supporting documentation, as necessary, to LDEQ;

2. Provide a top-down Best Available Control Technology (BACT) analysis for $PM_{2.5}$. For each source, any technically feasible control technology or combination of control technologies capable of controlling $PM_{2.5}$ to a higher level than the PM_{10} control technology currently proposed must be demonstrated to be infeasible based on adverse energy, environmental, or economic impacts; and

3. Demonstrate, using a model accepted by EPA and LDEQ, that $PM_{2.5}$ emissions, as quantified above, do not cause an exceedance of the $PM_{2.5}$ National Ambient Air Quality Standards of 15 $\mu g/m^3$ (annual average) and 35 $\mu g/m^3$ (24-hour average). For purposes of this analysis, the ambient concentrations attributed to Nucor Steel Louisiana should be added to $PM_{2.5}$ background concentrations.

Nevertheless, LDEQ does not maintain that the above information is specifically *required* to "show how compliance with the PSD requirements for PM10 will serve as an adequate surrogate for meeting the PSD requirements for PM2.5."

The record demonstrates that there are no feasible control technologies or combination of control technologies capable of controlling $PM_{2.5}$ to a higher level than the PM_{10} control technology identified as BACT.

Air Quality Impact Analyses

Prevention of Significant Deterioration regulations require an analysis of existing air quality for those pollutants emitted in significant amounts from a proposed new major stationary source. PM_{10}, SO_2, NO_X, and CO are pollutants of concern in this case.

Air quality modeling was performed for PM_{10}, $PM_{2.5}$, CO, SO_2, and NO_X in order to determine compliance with the National Ambient Air Quality Standards (NAAQS) and the Class II PSD Increment. Modeling results showed compliance with all applicable standards for PM_{10}, $PM_{2.5}$, CO, SO_2, and NO_X.

AERMOD modeling of CO and lead emissions from the proposed project indicates that the maximum offsite ground level concentrations of these pollutants will be below their respective PSD significance levels and preconstruction monitoring level. Therefore, pre-construction monitoring and refined NAAQS modeling for CO and lead were not required.

The pollutants NO_X, PM_{10}, $PM_{2.5}$ and SO_2 were above the modeling significance levels and refined modeling was conducted for these pollutants. The NO_X refined modeling demonstrated compliance with the NAAQS at all receptor locations. PM_{10}, $PM_{2.5}$, and SO_2 refined modeling demonstrated exceedances at receptor locations in the NAAQS model.

To further refine the PM_{10}, $PM_{2.5}$, and SO_2 models, Nucor first determined if it had an impact above the significance level at the receptors of concern. Where Nucor's contribution was deemed significant and the receptor was located on other industrial property, the emissions for the facility to which the property belongs were removed from the model. The model was then rerun to determine if any exceedances of the NAAQS occurred. If Nucor's contribution was deemed significant and the receptor was not located on other industrial property, Nucor analyzed whether it had an impact above the significance level at the receptor of concern at the time during which the receptor exceeded the respective standards. Based on the modeling received by LDEQ, no exceedances occur on other industrial property when the property owner's emissions are removed and Nucor is not significant at any of the modeled receptors at the time of an exceedance. The determination of significant contribution to an existing exceedance was performed in accordance with the July 5, 1988 memorandum, subject: "Air Quality Analysis for Prevention of Significant Deterioration", from Gerald A. Emison, Director, Office of Air Quality Planning and Standards to Thomas J. Maslany, Director, Air Management Division.

On November 19, 2009, Nucor submitted a revised modeling protocol for the assessment of $PM_{2.5}$. The revised protocol proposed the use of the maximum modeled annual average and maximum 8th highest 24-hour average $PM_{2.5}$ concentration to be added to the representative background concentration and compared with the $PM_{2.5}$ NAAQS. For purpose of assessing Nucor's contribution to modeled exceedances, LDEQ selected the most stringent of the proposed SILs, 1.2 $\mu g/m^3$, despite EPA's acknowledgement that the "SILs derived under this option [option 3] are very stringent for Class II and III areas compared to options 1 and 2" (72 FR 54140). On January 12, 2010, EPA Region 6 approved ERM's modeling protocol.

On February 8, 2010, Nucor submitted an NO_2 dispersion modeling analysis to address the new 1-hour NO_2 NAAQS (100 ppb) signed on January 22, 2010. The final rule entitled "Primary National Ambient Air Quality Standards for Nitrogen Dioxide" was promulgated on February 9, 2010 (75 FR 6474). At 75 FR 6525, EPA stipulates that:

> First, major new and modified sources applying for NSR/PSD permits will initially be required to demonstrate that their proposed emissions increases of NO_X will not cause or

> contribute to a violation of either the annual or 1-hour NO_2 NAAQS and the annual PSD increment.

EPA, however, has not developed a SIL for the 1-hour averaging period. EPA also addresses the need for a SIL at 75 FR 6525:

> We also believe that there may be a need to revise the screening tools currently used under the NSR/PSD program for completing NO_2 analyses. These screening tools include the significant impact levels (SILs), as mentioned by one commenter, but also include the significant emissions rate for emissions of NO_X and the significant monitoring concentration (SMC) for NO_2. EPA intends to evaluate the need for possible changes or additions to each of these important screening tools for NO_X/NO_2 due to the addition of a 1-hour NO_2 NAAQS. If changes or additions are deemed necessary, EPA will propose any such changes for public notice and comment in a separate action.

The maximum permitted emissions from Nucor's sources were modeled on a one-hour averaging period. The empirically derived NO_2/NO_x value of 0.75, as presented in USEPA's "Guidelines on Air Quality Models," was applied to the results. The maximum 8th highest 1-hour average NO_2 concentration was added to the three-year average of the second highest concentration from a background monitor and compared with the NAAQS. Outside sources were not taken into account in the modeling.

Dispersion Model Used: AERMOD

Pollutant	Averaging Period	National Ambient Air Quality Standard {NAAQS}	Calculated Maximum Ground Level Concentration (All sources plus Background)	Allowed Level of Significant Impact	Calculated Maximum Ground Level Concentration (Nucor Contribution)
$PM_{2.5}$	24-hour	35 µg/m^3	117.93 µg/m^{3*}	1.2 µg/m^{3**}	0.9216 µg/m^3
$PM_{2.5}$	Annual	15 µg/m^3	35.65 µg/m^{3*}	0.3 µg/m^3	0.0615 µg/m^3
PM_{10}	24-hour	150 µg/m^3	4152.35 µg/m^{3*}	5 µg/m^3	1.58 µg/m^3
SO_2	3-hour	1,300 µg/m^3	8479.19 µg/m^{3*}	25 µg/m^3	17.28 µg/m^3
SO_2	24-hour	365 µg/m^3	2181.57 µg/m^{3*}	5 µg/m^3	3.72 µg/m^3
SO_2	Annual	80 µg/m^3	361.01 µg/m^{3*}	1 µg/m^3	0.24 µg/m^3
NO_X	Annual	100 µg/m^3	54.0 µg/m^3	-	-
NO_X	1-hour	189 µg/m^3	95.4 µg/m^{3***}	-	-
CO****	1-hour	40,000 µg/m^3	856.2 µg/m^3	-	-
CO****	8-hour	10,000 µg/m^3	475.7 µg/m^3	-	-
Lead****	3 month rolling avg	0.15 µg/m^3	<0.01 µg/m^3		

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Dispersion Model Used: AERMOD

Pollutant	Averaging Period	National Ambient Air Quality Standard {NAAQS}	Calculated Maximum Ground Level Concentration*****
$PM_{2.5}$	24-hour	35 $\mu g/m^3$	5.30 $\mu g/m^3$
$PM_{2.5}$	Annual	15 $\mu g/m^3$	1.54 $\mu g/m^3$
PM_{10}	24-hour	150 $\mu g/m^3$	28.06 $\mu g/m^3$
SO_2	3-hour	1,300 $\mu g/m^3$	94.18 $\mu g/m^3$
SO_2	24-hour	365 $\mu g/m^3$	38.68 $\mu g/m^3$
SO_2	Annual	80 $\mu g/m^3$	8.39 $\mu g/m^3$

*The numbers in the permit application represent the original NAAQS modeling. These values represent the highest numbers after refining the model, per the description below.

**Proposed value. EPA proposed a rule entitled "Prevention of Significant Deterioration (PSD) for Particulate Matter Less Than 2.5 Micrometers (PM2.5)—Increments, Significant Impact Levels (SILs) and Significant Monitoring Concentration (SMC)" on September 21, 2007 (72 FR 54112). This rule has not been finalized. In the proposal, EPA suggested 3 SIL values – 5.0 $\mu g/m^3$, 4.0 $\mu g/m^3$, and 1.2 $\mu g/m^3$ (options 1 - 3, respectively).

***Includes Nucor sources only. There is no promulgated or proposed SIL for the 1-hour averaging period.

****From significance modeling. Includes Nucor sources only and does not include background.

*****These values represent Nucor's sources only; these values include receptors at which an exceedance did not occur and for which it was not necessary to compare Nucor's contribution to the significance level. For short term standards, this number is represented by the highest second high value; this number is used for comparison purposes only. A full description on how compliance was determined follows these tables.

PSD INCREMENT ANALYSIS

A Class I area impact analysis was performed to determine the effect of this proposed project on the Breton Sound Class I Area. This Class I area is located approximately 187 kilometers from the Nucor Steel Louisiana Facility. The protocol for the Class I area impact analysis was reviewed and approved by the Federal Land Manager of the Caney Creek Wilderness Area and LDEQ. The Class I area impact analysis included air quality impact, deposition impact, and

visibility impairment analyses. The results of these analyses showed that for the three different operating scenarios (normal operation, maintenance case 1A, and maintenance case 2A) the facility will not have an adverse impact on the Class I area. When the modeled value from all surrounding facilities and Nucor's contribution exceed the allowed Class I PSD Increment, then EPA allows Nucor's contribution to be compared to the allowed Level of Significant Impact. At locations where Nucor's contribution was deemed significant, the model determined that the contribution from Nucor and all surrounding facilities did not exceed the allowed Class I PSD Increment.

Dispersion Model Used: CALPUFF (Class I)

Pollutant	Averaging Period	Allowed Class I PSD Increment	Modeled Class I Increment* (All modeled facilities)	Allowed Level of Significant Impact	NUCOR contribution to Increment
PM_{10}	24 - hour	8 $\mu g/m^3$	0.18 $\mu g/m^3$		
SO_2	3 -hour	25 $\mu g/m^3$	62.9 $\mu g/m^3$	1.0 $\mu g/m^3$	< 1.0 $\mu g/m^3$
SO_2	24 - hour	5 $\mu g/m^3$	31.9 $\mu g/m^3$	0.2 $\mu g/m^3$	< 0.2 $\mu g/m^3$
SO_2	Annual	2 $\mu g/m^3$	0.010 $\mu g/m^3$		
NO_X	Annual	2.5 $\mu g/m^3$	0.0069 $\mu g/m^3$		

* When the modeled value from all surrounding facilities and Nucor's contribution exceed the allowed Class I PSD Increment, then EPA allows Nucor's contribution to be compared to the allowed Level of Significant Impact. At locations where Nucor's contribution was deemed significant, the model determined that the contribution from Nucor and all surrounding facilities did not exceed the allowed Class I PSD Increment.

Dispersion Model Used: AERMOD (Class II)

Pollutant	Averaging Period	Class II PSD Increment	Modeled Class II Increment** (All modeled facilities)	Allowed Level of Significant Impact	NUCOR contribution to Increment
PM_{10}	24 - hour	30 $\mu g/m^3$	14,022.9 $\mu g/m^{3***}$	5 $\mu g/m^3$	3.22 $\mu g/m^3$
SO_2	3 -hour	512 $\mu g/m^3$	8471.4 $\mu g/m^{3***}$	25 $\mu g/m^3$	17.28 $\mu g/m^3$
SO_2	24 - hour	91 $\mu g/m^3$	2036.1 $\mu g/m^{3***}$	5 $\mu g/m^3$	3.73 $\mu g/m^3$
SO_2	Annual	20 $\mu g/m^3$	306.1 $\mu g/m^{3***}$	1 $\mu g/m^3$	0.24 $\mu g/m^3$
NO_X	Annual	25 $\mu g/m^3$	7.43 $\mu g/m^3$		

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Dispersion Model(s) Used: AERMOD (Class II)

Pollutant	Averaging Period	Class II PSD Increment	Modeled Class II Increment****
PM_{10}	24 - hour	30 $\mu g/m^3$	28.06 $\mu g/m^3$
SO_2	3 -hour	512 $\mu g/m^3$	94.18 $\mu g/m^3$
SO_2	24 - hour	91 $\mu g/m^3$	38.68 $\mu g/m^3$
SO_2	Annual	20 $\mu g/m^3$	8.39 $\mu g/m^3$

** When the modeled value from all surrounding facilities and Nucor's contribution exceed the allowed Class II PSD Increment, then EPA allows Nucor's contribution to be compared to the Allowed Level of Significant Impact. Where Nucor's contribution was deemed significant and the receptor was located on other industrial property, the emissions for the facility to which the property belongs were removed from the model. The model was then rerun to determine if any exceedances of the NAAQS or PSD increment occurred. If Nucor's contribution was deemed significant and the receptor was not located on other industrial property, Nucor analyzed whether it had an impact above the significance level at the receptor of concern at the time during which the receptor exceeded the respective standards.

*** The numbers in the permit application represent the original PSD increment modeling. These values represent the highest numbers after refining the model, per the description below.

**** These values represent Nucor's sources only; these values include receptors at which an exceedance did not occur and for which it was not necessary to compare Nucor's contribution to the significance level. For short term standards, this number is represented by the highest second high value; this number is used for comparison purposes only. A full description on how compliance was determined is above these tables.

Dispersion Model Used: AERMOD

Pollutant	Averaging Period	Calculated Maximum Ground Level Concentration	Ambient Air Standard {AAS}
Acrolein	8-hour	0.041 $\mu g/m^3$	5.4 $\mu g/m^3$
Acrylonitrile	Annual	0.0077 $\mu g/m^3$	1.47 $\mu g/m^3$
Ammonia	8-hour	4.77 $\mu g/m^3$	640 $\mu g/m^3$
Arsenic (and compounds)	Annual	0.00017 $\mu g/m^3$	0.02 $\mu g/m^3$

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Pollutant	Averaging Period	Calculated Maximum Ground Level Concentration	Ambient Air Standard (AAS)
Barium (and compounds)	8-hour	0.0057 $\mu g/m^3$	11.9 $\mu g/m^3$
Benzene	Annual	0.54 $\mu g/m^3$	12 $\mu g/m^3$
Chromium (and compounds)	Annual	0.00009 $\mu g/m^3$	0.01 $\mu g/m^3$
Copper (and compounds)	8-hour	0.00659 $\mu g/m^3$	23.8 $\mu g/m^3$
Chlorinated dibenzo-p-dioxins	Annual	0.00001 $\mu g/m^3$	0.003 $\mu g/m^3$
Dichloromethane	Annual	0.00085 $\mu g/m^3$	212.77 $\mu g/m^3$
Hydrofluoric Acid	8-hour	0.001 $\mu g/m^3$	61.9 $\mu g/m^3$
Mercury (and compounds)	8-hour	0.00322 $\mu g/m^3$	1.19 $\mu g/m^3$
Naphthalene (and Methylnaphthalenes)	8-hour	0.46 $\mu g/m^3$	1190 $\mu g/m^3$
Nickel (and compounds)	Annual	0.0002 $\mu g/m^3$	0.21 $\mu g/m^3$
Polynuclear aromatic hydrocarbons	Annual	0.032 $\mu g/m^3$	0.06 $\mu g/m^3$
Phenol	8-hour	2.68 $\mu g/m^3$	452 $\mu g/m^3$
Zinc (and compounds)	8-hour	0.014 $\mu g/m^3$	119 $\mu g/m^3$

Modeling was conducted by the facility for all criteria pollutants and for all toxic air pollutants (TAP) emitted above the minimum emission rate.

One TAP, PAHs, exceeded 7.5% of the AAS; however, no outside sources of PAHs were within the impact area defined by the screening model. PAHs were below 75% of the AAS. All other TAPs were below 7.5% of the respective AAS in the screening models.

CO and lead were below the respective modeling significance levels for each averaging period in the screening models; NO_X, PM_{10}, $PM_{2.5}$, and SO_2 were above the modeling significance levels and refined modeling was conducted for these pollutants. The NO_X refined modeling demonstrated compliance with both the NAAQS and PSD increment level at all receptor locations. PM_{10}, $PM_{2.5}$, and SO_2 refined modeling demonstrated exceedances at receptor locations in both the NAAQS and PSD increment models. There is currently no PSD increment for $PM_{2.5}$, and so, only further analysis of the NAAQS receptor exceedances was required.

See Table 2 – Air Quality Analysis Summary of the proposed PSD permit for more detailed modeling results.

2. Nonattainment New Source Review (NNSR)

Nucor Steel Louisiana Facility is located in an attainment area; therefore, NNSR does not apply.

3. Notification of Federal Land Manager

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

The Federal Land Manager (FLM) is responsible for evaluating a facility's projected impact on the Air Quality Related Values (AQRV) (e.g., visibility, sulfur and nitrogen deposition, any special considerations concerning sensitive resources, etc.[9]) and recommending that LDEQ either approve or disapprove the facility's permit application based on anticipated impacts. The FLM also may suggest changes or conditions on a permit. However, LDEQ makes the final decision on permit issuance. The FLM also advises reviewing agencies and permit applicants about other FLM concerns, identifies AQRV and assessment parameters for permit applicants, and makes ambient monitoring recommendations.

If LDEQ receives a PSD or NNSR permit application for a facility that "may affect" a Class I area, the FLM charged with direct responsibility for managing these lands is notified.

The meaning of the term "may affect" is interpreted by EPA policy to include all major sources or major modifications which propose to locate within 100 kilometers (km) of a Class I area. However, if a major source proposing to locate at a distance greater than 100 km is of such size that LDEQ or the FLM is concerned about potential impacts on a Class I area, LDEQ can ask the applicant to perform an analysis of the source's potential emissions impacts on the Class I area. This is because certain meteorological conditions, or the quantity or type of air emissions from large sources located further than 100 km, may cause adverse impacts. In order to determine whether a source located further than 100 km may affect a Class I area, LDEQ uses the Q/d approach.

Q/d refers to the ratio of the sum of the net emissions increase (in tons) of PM_{10}, SO_2, NO_X, and H_2SO_4 to the distance (in kilometers) of the facility from the nearest boundary of the Class I area.

$$Q/d = \frac{PM_{10\,(NEI)} + SO_{2\,(NEI)} + NO_{X\,(NEI)} + H_2SO_{4\,(NEI)}}{\text{Class I km}}$$ [10]

Where:

$PM_{10\,(NEI)}$	=	net emissions increase of PM_{10}
$SO_{2\,(NEI)}$	=	net emissions increase of SO_2
$NO_{X\,(NEI)}$	=	net emissions increase of NO_X
$H_2SO_{4\,(NEI)}$	=	net emissions increase of H_2SO_4
Class I km	=	distance to nearest Class I area (in kilometers)

If $Q/d \geq 4$, LDEQ will formally notify the FLM in accordance with LAC 33:III.509.P.1.

---

[9] See http://www2.nature.nps.gov/air/Permits/ARIS/AQRV.cfm.

[10] If both NNSR and PSD review are required, the higher of the two "net emissions increase" values has been selected. The net emissions increase for NNSR and PSD purposes may be different due to differing contemporaneous periods. If the net emissions increase of any pollutant is negative, the value used in the equation has been set to zero. If the project did not trigger a netting analysis, LDEQ uses the project increase (see §504.A.3 (NNSR) and §509.A.4 (PSD)). In this case, the value will be less than the pollutant's significance level.

In this instance,

$$Q/d = \frac{716.90 + 3781.84 + 3791.83 + 0.0}{192} = 43.18$$

LDEQ has notified the Federal Land Manager for Breton National Wildlife Refuge in accordance with LAC 33:III.509.P.1. Modeling included in the application (Appendix F of the September 2009 Application and Attachment 1 of the January 2010 Additional Information submittal) demonstrates that the proposed project will not adversely impact visibility in a Class I area. An email dated February 13, 2009 from Jill Webster the Federal Land Manager for Breton National Wildlife Refuge, indicated that the impacts at Breton pass the minimum test.

4. Reasonable Possibility

As previously mentioned, increases of PM/PM_{10}, SO_2, NO_X, CO, and VOC associated with the proposed project did trigger PSD review.

However, increases of Pb associated with the proposed project did not trigger PSD review. Because the applicant elected to use "potential to emit" in lieu of "projected actual emissions" to determine the project increase, there is no "reasonable possibility" that the proposed project may result in a significant emissions increase.

X. ADDITIONAL MONITORING AND TESTING REQUIREMENTS

In addition to the monitoring and testing requirements set forth by applicable state and federal regulations (see Section VIII of this Statement of Basis), a number of "LAC 33:III.507.H.1.a" and/or "LAC 33:III.501.C.6" conditions may appear in the "Specific Requirements" section of the proposed permit. These conditions have been added where no applicable regulation exists or where an applicable regulation does not contain sufficient monitoring, recordkeeping, and/or reporting provisions to ensure compliance. LAC 33:III.507.H.1.a provisions, which may include recordkeeping requirements, are intended to fulfill Part 70 periodic monitoring obligations under 40 CFR 70.6(a)(3)(i)(B).

The following table contains a summary of the NSPS, NESHAP/MACT, Compliance Assurance Monitoring (CAM) and other periodic monitoring for the Nucor facility.

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Source	Monitor	Method	Citation
ARE001	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
Coke Ovens Coal Handling, Crushing, and Compacting	Stack Emissions	New Source Performance Standards, 40 CFR 60, Appendix A, Method 5 - Determination of Particulate Matter Emissions from Stationary Sources, Every 5 years	LAC 33:III.507.H.1.a
	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
CRG002 Common Requirements for Power Boiler	Oxygen or Carbon dioxides emissions	By Continuous Monitoring System (CMSs)	40 CFR 60.48b(b)(1)
	Nitrogen oxides	By Continuous Monitoring System (CMSs)	40 CFR 60.48b(b)(1)
	Stack Emissions	New Source Performance Standards, 40 CFR 60, Appendix A, Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources; Method 6C - Determination of Sulfur Dioxide Emissions from Stationary Sources; and Method 5 - Determination of Particulate Matter Emissions from Stationary Sources, Every 5 years	LAC 33:III.507.H.1.a
EQT001 Coke Battery 1 Coal Charging	Visible Emissions	By Daily Observation during Charging	40 CFR 60.303(d)3
EQT003 Coke Battery 1 Coke Quench Tower	Equipment Condition	Technically sound method monthly, Inspect each quench tower for damaged or missing baffles and blockage	[40 CFR 63.7295(b)(3)]
EQT004 COK-104 - Coke Battery 1 Coke Handling	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT005 Coke Battery 1 FGD Lime Silo Unloading	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT006 Coke Battery 1 FGD Waste Loading	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT007 Coke Battery 2 Coal Charging	Visible Emissions	By Daily Observation during Charging	40 CFR 60.303(d)3

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Source	Monitor	Method	Citation
EQT009 Coke Battery 2 Coke Quench Tower	Equipment Condition	Technically sound method monthly, Inspect each quench tower for damaged or missing baffles and blockage	[40 CFR 63.7295(b)(3)]
EQT010 COK-204 - Coke Battery 2 Coke Handling	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT011 Coke Battery 2 FGD Lime Silo Unloading	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT012 Coke Battery 2 FGD Waste Loading	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT013 Coke Bin Tower	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT014 Coke Screening	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
	Stack Emissions	New Source Performance Standards, 40 CFR 60, Appendix A, Method 5 - Determination of Particulate Matter Emissions from Stationary Sources, Initially and every five years	LAC 33:III.507.H.1.a
EQT015 Cast House 1 Baghouse Vent	Equipment Condition – Capture System	Visual Inspection every 24 hrs, verify that each damper is in the same position as during the initial performance test	40 CFR 63.7830(a)(1)
	Equipment Condition – Hoppers	Visual Inspection weekly, Confirm that dust is being removed from hoppers	40 CFR 63.7830(b)(4)(ii)
	Equipment Condition – Bag Cleaning Mechanism	Visual Inspection Monthly	40 CFR 63.7830(b)(4)(v)
	Equipment Condition – Reverse air and shaker-type baghouses	Visual Inspection monthly, Check bag tension	40 CFR 63.7830(b)(4)(vi)
	Equipment Condition – Fans	Visual Inspection quarterly, Inspect fans for wear, material buildup, and corrosion	40 CFR 63.7830(b)(4)(viii)
	Flow rate – through each separately ducted hood	Flow rate monitoring device	40 CFR 63.7830(a)(2)
	Opacity	Continuous Opacity Monitor (COM's)	40 CFR 63.7830(b)(2)
	Baghouse Equipment Condition	Visual Inspection quarterly, Inspect the baghouse interior for air leaks	40 CFR 63.7830(b)(4)(vii)

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Source	Monitor	Method	Citation
EQT015 Cast House 1 Baghouse Vent	Stack Emissions	New Source Performance Standards, 40 CFR 60, Appendix A, Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources; Method 6C - Determination of Sulfur Dioxide Emissions from Stationary Sources; and Method 5 - Determination of Particulate Matter Emissions from Stationary Sources, Initially and every five years	LAC 33:III.507.H.1.a
	Pressure Drop	Pressure Drop Instrument, daily	40 CFR 63.7830(b)(4)(i)
EQT016 Cast House 2 Baghouse Vent	Equipment Condition – Capture System	Visual Inspection every 24 hrs, verify that each damper is in the same position as during the initial performance test	40 CFR 63.7830(a)(1)
	Equipment Condition – Hoppers	Visual Inspection weekly, Confirm that dust is being removed from hoppers	40 CFR 63.7830(b)(4)(ii)
	Equipment Condition – Bag Cleaning Mechanism	Visual Inspection Monthly	40 CFR 63.7830(b)(4)(v)
	Equipment Condition – Reverse air and shaker-type baghouses	Visual Inspection monthly, Check bag tension	40 CFR 63.7830(b)(4)(vi)
	Equipment Condition – Fans	Visual Inspection quarterly, Inspect fans for wear, material buildup, and corrosion	40 CFR 63.7830(b)(4)(viii)
	Flow rate – through each separately ducted hood	Flow rate monitoring device	40 CFR 63.7830(a)(2)
	Opacity	Continuous Opacity Monitor - COM's	40 CFR 63.7830(b)(2)
	Baghouse Equipment Condition	Visual Inspection quarterly, Inspect the baghouse interior for air leaks	40 CFR 63.7830(b)(4)(vii)

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Source	Monitor	Method	Citation
EQT016 Cast House 2 Baghouse Vent (Continued)	Stack Emissions	New Source Performance Standards, 40 CFR 60, Appendix A, Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources, Method 6C - Determination of Sulfur Dioxide Emissions from Stationary Sources, and Method 5 - Determination of Particulate Matter Emissions from Stationary Sources, Initially and every five years	
	Pressure Drop	Pressure Drop Instrument, daily	40 CFR 63.7830(b)(4)(i)
EQT021 Pig Iron Desulfurization Station Baghouse Vent	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
	Stack Emissions	New Source Performance Standards, 40 CFR 60, Appendix A, Method 5 - Determination of Particulate Matter Emissions from Stationary Sources, Initially and every five years	LAC 33:III.507.H.1.a
EQT022 PIG-102 - Pig Iron Solidification Baghouse Vent	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT031 Sinter Flue Gas Scrubber Stack	Equipment Condition – Hoppers	Visual Inspection weekly, Confirm that dust is being removed from hoppers	40 CFR 63.7830(b)(4)(ii)
EQT031 Sinter Flue Gas Scrubber Stack	Equipment Condition – Bag Cleaning Mechanism	Visual Inspection Monthly	40 CFR 63.7830(b)(4)(v)
	Equipment Condition – Reverse air and shaker-type baghouses	Visual Inspection monthly, Check bag tension	40 CFR 63.7830(b)(4)(vi)
	Equipment Condition – Fans	Visual Inspection quarterly, Inspect fans for wear, material buildup, and corrosion	40 CFR 63.7830(b)(4)(viii)
	Baghouse Equipment Condition	Visual Inspection quarterly, Inspect baghouse interior for air leaks	40 CFR 63.7830(b)(4)(vii)
	Pressure Drop	Pressure Drop Instrument, daily	40 CFR 63.7830(b)(4)(i)

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Source	Monitor	Method	Citation
EQT031 Sinter Flue Gas Scrubber Stack (continued)	Stack Emissions	New Source Performance Standards, 40 CFR 60, Appendix A, Method 7E - Determination of Nitrogen Oxides Emissions from Stationary Sources; Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources; Method 25A - Determination of Total Gaseous Organic Concentration using a Flame Ionization Analyzer; Method 6C - Determination of Sulfur Dioxide Emissions from Stationary Sources; and Method 5 - Determination of Particulate Matter Emissions from Stationary Sources, Initially and every five years	LAC 33:III.507.H.1.a
EQT032 Sinter Strand Baghouse	Equipment Condition – Capture System	Visual Inspection every 24 hrs, verify that each damper is in the same position as during the initial performance test	40 CFR 63.7830(a)(1)
	Equipment Condition – Hoppers	Visual Inspection weekly, Confirm that dust is being removed from hoppers	40 CFR 63.7830(b)(4)(ii)
	Equipment Condition – Bag Cleaning Mechanism	Visual Inspection Monthly	40 CFR 63.7830(b)(4)(v)
	Equipment Condition – Reverse air and shaker-type baghouses	Visual Inspection monthly, Check bag tension	40 CFR 63.7830(b)(4)(vi)
	Equipment Condition – Fans	Visual Inspection quarterly, Inspect fans for wear, material buildup, and corrosion	40 CFR 63.7830(b)(4)(viii)
	Flow rate – through each separately ducted hood	Flow rate monitoring device	40 CFR 63.7830(a)(2)
	Pressure Drop	Pressure Drop Instrument, daily	40 CFR 63.7830(b)(4)(i)
EQT033 Sinter Cooler	Baghouse Equipment Condition	Visual Inspection quarterly, Inspect the baghouse interior for air leaks	40 CFR 63.7830(b)(4)(vii)
	Stack Emissions	New Source Performance Standards, 40 CFR 60, Appendix A, Method 5 - Determination of Particulate Matter Emissions from Stationary Sources, Initially and every five years	LAC 33:III.507.H.1.a

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Source	Monitor	Method	Citation
EQT033 Sinter Cooler (Cont.)	Pressure Drop	Pressure Drop Instrument, daily	40 CFR 63.7830(b)(4)(i)
EQT034 Sinter FGD Lime Silo Unloading	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT035 Sinter FGD Lime Waste Loading	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT041 Air-cooled Slag Processing Primary Crusher	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT042 Air-cooled Slag Processing Primary Screening	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT043 Air-cooled Slag Processing Secondary Crusher	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT044 Air-cooled Slag Processing Secondary Screen	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT046 Slag Mill Dryer Baghouse Vent	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Pressure Drop	Pressure Drop Instrument, daily	40 CFR 64.6(c)(1)
	Opacity	40 CFR 60, Appendix A, Method 9 upon occurrence of event of observing visible emissions	40 CFR 64.6(c)(1)
	Visible Emissions	40 CFR 60, Appendix A, Method 22,daily	LAC 33:III.507.H.1.a
	Stack Emissions	New Source Performance Standards, 40 CFR 60, Appendix A, Method 5 - Determination of Particulate Matter Emissions from Stationary Sources, Initially	LAC 33:III.507.H.1.a
EQT047 Slag Mill Dry Slag Feed Bin Baghouse Vent	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT048 Slag Mill Crushers/Screener Baghouse Vent	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT049 Slag Mill Building Baghouse Vent	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Pressure Drop	Pressure Drop Instrument, daily	40 CFR 64.6(c)(1)

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Source	Monitor	Method	Citation
EQT049 Slag Mill Building Baghouse Vent (continued)	Stack Emissions	New Source Performance Standards, 40 CFR 60, Appendix A, Method 5 - Determination of Particulate Matter Emissions from Stationary Sources Initially and every five years	LAC 33:III.507.H.1.a
	Opacity	40 CFR 60, Appendix A, Method 9 upon occurrence of event of observing visible emissions	40 CFR 64.6(c)(1)
	Visible Emissions	40 CFR 60, Appendix A, Method 22,daily	LAC 33:III.507.H.1.a
EQT050 Slag Mill Tranfer Points Baghouse Vent	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT051 Slag Mill Product Silo Baghouse Vent	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT052 Slag Mill Loading Collector Baghouse Vent	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Pressure Drop	Pressure Drop Instrument, daily	40 CFR 64.6(c)(1)
	Opacity	40 CFR 60, Appendix A, Method 9 upon occurrence of event of observing visible emissions	40 CFR 64.6(c)(1)
	Visible Emissions	40 CFR 60, Appendix A, Method 22,daily	LAC 33:III.507.H.1.a
	Stack Emissions	New Source Performance Standards, 40 CFR 60, Appendix A, Method 5 - Determination of Particulate Matter Emissions from Stationary Sources, Initially	LAC 33:III.507.H.1.a
EQT053 Stock House 1 Baghouse Vent	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT054 Stock House 2 Baghouse Vent	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
EQT055 Blast Furnace 1 Topgas Flare Pilot	Presence of a Flame	Presence of a flame monitored continuously by heat sensing device	LAC 33:III.507.H.1.a
EQT056 Blast Furnace 2 Topgas Flare Pilot	Presence of a Flame	Presence of a flame monitored continuously by heat sensing device	LAC 33:III.507.H.1.a

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Source	Monitor	Method	Citation
FUG009 Sinter Building Fugitives	Opacity	Opacity monitored by continuous opacity monitor (COM) continuously.	40 CFR 63.7833(a)
GRP004 Slag Granulator 1 Cap	Slag Mass	Technically sound method	LAC 33:III.501.C.6
GRP005 Diverted Slag Pits 1 Cap	Diverted Slag Mass	Technically sound method	LAC 33:III.501.C.6
GRP006 Slag Granulator 2 Cap	Slag Mass	Technically sound method	LAC 33:III.501.C.6
GRP007 Diverted Slag Pits 2 Cap	Diverted Slag Mass	Technically sound method	LAC 33:III.501.C.6
PCS002 Coke Battery Process Group	Collecting Main	Presence of a leak monitored by 40 CFR 63, Method 303 daily.	40 CFR 63.308(a)
	Coke Battery Pressure	Pressure monitored by pressure instrument daily for each day of operation. Monitor the pressure in each oven or in a common battery tunnel to ensure that the ovens are operated under a negative pressure.	40 CFR 63.303(b)(1)(ii)
RLP006, RLP012 Coke Battery 1 Flue Gas Desulfurization Stack Coke Battery 2 Flue Gas Desulfurization Stack	Stack Emissions	New Source Performance Standards, 40 CFR 60, Appendix A, Method 7E - Determination of Nitrogen Oxides Emissions from Stationary Sources; Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources; Method 25A - Determination of Total Gaseous Organic Concentration using a Flame Ionization Analyzer; Method 6C - Determination of Sulfur Dioxide Emissions from Stationary Sources; and Method 5 - Determination of Particulate Matter Emissions from Stationary Sources, Initially and every five years	LAC 33:III.507.H.1.a
RLP013 PCI Mill Vent	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Source	Monitor	Method	Citation
RLP013 PCI Mill Vent (continued)	Temperature	Temperature monitored by temperature monitoring device continuously. Monitor the temperature of the gas stream at the exit of the thermal dryer.	40 CFR 60.253(a)(1)
	Stack Emissions	New Source Performance Standards, 40 CFR 60, Appendix A, Method 7E - Determination of Nitrogen Oxides Emissions from Stationary Sources; Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources. Initially and every five years	LAC 33:III.507.H.1.a
RLP014 Slag Mill Dryer Stack	Baghouse Equipment Condition	Inspect using technically sound method semiannually	LAC 33:III.507.H.1.a
	Filter Vent Visible Emissions	By Daily Observation	LAC 33:III.507.H.1.a
RLP015, RLP016 STV-101-Blast Furnace 1 Hot Blast Stoves Common Stack, STV-201-Blast Furnace 2 Hot Blast Stoves Common Stack	Scrubber Flow	Scrubber Flow rate monitored by flow rate monitoring device once every four hours.	LAC 33:III.507.H.1.a
	Cyclone vents	Equipment/operational data monitored by technically sound method upon each occurrence of process unit shut down or whenever visible emission checks indicate maintenance may be necessary. Perform maintenance as necessary.	LAC 33:III.507.H.1.a
RLP015, RLP016 STV-101-Blast Furnace 1 Hot Blast Stoves Common Stack, STV-201-Blast Furnace 2 Hot Blast Stoves Common Stack	Stack Emissions	New Source Performance Standards, 40 CFR 60, Appendix A, Method 7E - Determination of Nitrogen Oxides Emissions from Stationary Sources; Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources; Method 6C - Determination of Sulfur Dioxide Emissions from Stationary Sources; and Method 5 - Determination of Particulate Matter Emissions from Stationary Sources, Initially and every five years	LAC 33:III.507.H.1.a

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

XI. OPERATIONAL FLEXIBILITY

Emissions Caps

An emissions cap is a permitting mechanism to limit allowable emissions of two or more emissions units below their collective potential to emit (PTE). The proposed permit does establish several emissions caps.

GRP0003 – PWR-100

- Nitrogen oxides <= 1402.50 tons/yr from all Power Boilers. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if NOx exceeds the maximum listed in this specific condition for any twelve consecutive month period. [State Only]. [LAC 33:III.501.C.6]

- Nitrogen oxides monitored by continuous emission monitor (CEM) continuously. [State Only]. [LAC 33:III.501.C.6]

- Nitrogen oxides recordkeeping by continuous emission monitor (CEM) continuously. Keep records of the total NOx each month, as well as the total NOx for the last twelve months. Make records available for inspection by DEQ personnel. [State Only]. [LAC 33:III.501.C.6]

GRP0004 – SLG-103 and also for GRP0006 – SLG-203

- Slag Mass flow rate <= 753187.43 tons/yr into the Slag Granulator Granulation Tanks. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if the total slag production exceeds the maximum listed in this specific condition for any twelve consecutive month period. Slag diverted to the Blast Furnace Slag Pits shall not be included in determining total slag production. [State Only]. [LAC 33:III.501.C.6]

- Slag Mass monitored by technically sound method upon occurrence of event. [State Only]. [LAC 33:III.501.C.6]

- Slag Mass recordkeeping by electronic or hard copy upon occurrence of event. Keep records of the total diverted slag each month, as well as the total slag production for the last twelve months. Make records available for inspection by DEQ personnel. [State Only]. [LAC 33:III.501.C.6]

GRP0005 – SLG-107 and also for GRP0007 – SLG-207

- Diverted slag Mass <= 37659.4 tons/yr into the blast furnace slag pits. Noncompliance with this limitation is a reportable violation of the permit. Notify the Office of Environmental Compliance, Enforcement Division if the diverted slag exceeds the maximum listed in this specific condition for any twelve consecutive month period. [State Only]. [LAC 33:III.501.C.6]

- Diverted slag Mass monitored by technically sound method upon occurrence of event. [State Only]. [LAC 33:III.501.C.6]

- Diverted slag Mass recordkeeping by electronic or hard copy upon occurrence of event. Keep records of the total diverted slag each month, as well as the total diverted slag for the last twelve months. Make records available for inspection by DEQ personnel. [State Only]. [LAC 33:III.501.C.6]

Alternative Operating Scenarios

LAC 33:III.507.G.5 allows the owner or operator to operate under any operating scenario incorporated in the permit. Any reasonably anticipated alternative operating scenarios may be identified by the owner or operator through a permit application and included in the permit. The proposed permit does include two alternative operating scenarios. These scenarios are required and necessary during maintenance operations.

- GRP0001 – COK-110 and also for GRP0002 – COK-210
  The facility shall be limited to planned venting through one HRSG bypass stack at any given time for this Coke Battery. Simultaneous planned bypass of the FGD system is not allowed.

- PCS0002 – CokeBat and also for GRP0002 – COK-210
  The facility shall be limited to planned bypassing through one FGD system at any given time for both Coke Batteries. Simultaneous planned bypass of the FGD system and any HRSG bypass is not allowed. [LAC 33:III.501.C.6]

Streamlined Requirements

When applicable requirements overlap or conflict, the permitting authority may choose to include in the permit the requirement that is determined to be most stringent or protective as detailed in EPA's "White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program" (March 5, 1996). The overall objective is to determine the set of permit terms and conditions that will assure compliance with all applicable requirements for an emissions unit or group of emissions units so as to eliminate redundant or conflicting requirements. The proposed permit does not contain streamlined provisions.

Louisiana Consolidated Fugitive Emission Program (LCFEP)

Nucor Steel Louisiana Facility does not comply with a streamlined equipment leak monitoring program.

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

XII. PERMIT SHIELD

A permit shield, as described in 40 CFR 70.6(f) and LAC 33:III.507.I, provides an "enforcement shield" which protects the facility from enforcement action for violations of applicable federal requirements. It is intended to protect the facility from liability for violations if the permit does not accurately reflect an applicable federal or federally enforceable requirement.

The proposed permit does establish a permit shield.

Per 40 CFR 70.6(f) and LAC 33:III.507.I, a permit shield has been determined for the proposed permit.

Emissions Source	Proposes to be Shielded From ...	... by compliance with ...	Was the Permit Shield Granted?
Coke Oven Charging	Subpart L [40 CFR 63.303(d)(2)]	BACT for Coke Oven Charging. (BACT is determined to be Flat Car Charging of Compacted Coke)	Yes

XIII. IMPACTS ON AMBIENT AIR

Modeling of PM_{10}, SO_2, NO_X, CO, and VOC is addressed in Section IX.1 of this Statement of Basis.

XIV. COMPLIANCE HISTORY AND CONSENT DECREES

Consolidated Environmental Management Inc. is proposing to construct and operate the Nucor Steel Louisiana Facility. Thus, there are no enforcement actions pertaining the facility.

XV. REQUIREMENTS THAT HAVE BEEN SATISFIED

The following state and/or federal obligations have been satisfied and are therefore not included as Specific Requirements.

Source ID	Citation	Description
None		

XVI. OTHER REQUIREMENTS

Executive Order No. BJ 2008-7 directs all state agencies to administer their regulatory practices, programs, contracts, grants, and all other functions vested in them in a manner consistent with Louisiana's Comprehensive Master Plan for a Sustainable Coast and public interest to the maximum extent possible. If a proposed facility or modification is

located in the Coastal Zone, LDEQ requires the applicant to document whether or not a Coastal Use Permit is required, and if so, whether it has been obtained. Coastal Use Permits are issued by the Coastal Management Division of the Louisiana Department of Natural Resources (LDNR).

The facility is located in the Coastal Zone; Coastal Use Permit P081462 has been issued by the LDNR.

XVII. PUBLIC NOTICE/PUBLIC PARTICIPATION

Written comments, written requests for a public hearing, or written requests for notification of the final decision regarding this permit action may be submitted to:

Ms. Soumaya Ghosn
LDEQ, Public Participation Group
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313

Written comments and/or written requests must be received prior to the deadline specified in the public notice. If LDEQ finds a significant degree of public interest, a public hearing will be held. All comments will be considered prior to a final permit decision.

LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The permit application, proposed permit, and this Statement of Basis are available for review at LDEQ, Public Records Center, Room 127, 602 North 5th Street, Baton Rouge, Louisiana. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). Additional copies may be viewed at the local library identified in the public notice. The available information can also be accessed electronically via LDEQ's Electronic Document Management System (EDMS) on LDEQ's public website, www.deq.louisiana.gov.

Inquiries or requests for additional information regarding this permit action should be directed to the contact identified on page 1 of this Statement of Basis.

Persons wishing to be included on the public notice mailing list or for other public participation-related questions should contact LDEQ's Public Participation Group at P.O. Box 4313, Baton Rouge, LA 70821-4313; by e-mail at maillistrequest@ldeq.org; or contact LDEQ's Customer Service Center at (225) 219-LDEQ (219-5337). Alternatively, individuals may elect to receive public notices via e-mail by subscribing to LDEQ's Public Notification List Service at http://www.doa.louisiana.gov/oes/listservpage/ldeq_pn_listserv.htm.

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

Permit public notices can be viewed at LDEQ's "Public Notices" webpage, http://www.deq.louisiana.gov/apps/pubNotice/default.asp. Electronic access to each proposed permit and Statement of Basis current on notice is also available on this page. General information related to public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabid/2198/Default.aspx.

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

APPENDIX A - ACRONYMS

AAS	Ambient Air Standard (LAC 33:III.Chapter 51)
AP-42	EPA document number of the Compilation of Air Pollutant Emission Factors
BACT	Best Available Control Technology
BTU	British Thermal Units
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAM	Compliance Assurance Monitoring, 40 CFR 64
CEMS	Continuous Emission Monitoring System
CMS	Continuous Monitoring System
CO	Carbon monoxide
COMS	Continuous Opacity Monitoring System
CFR	Code of Federal Regulations
EI	Emissions Inventory (LAC 33:III.919)
EPA	(United States) Environmental Protection Agency
EIQ	Emission Inventory Questionnaire
ERC	Emission Reduction Credit
FR	Federal Register or Fixed Roof
H_2S	Hydrogen sulfide
H_2SO_4	Sulfuric acid
HAP	Hazardous Air Pollutants
Hg	Mercury
HON	Hazardous Organic NESHAP
IBR	Incorporation by Reference
LAER	Lowest Achievable Emission Rate
LDEQ	Louisiana Department of Environmental Quality
M	Thousand
MM	Million
MACT	Maximum Achievable Control Technology
MEK	Methyl ethyl ketone
MIK	Methyl isobutyl ketone
MSDS	Material Safety Data Sheet
MTBE	Methyl tert-butyl ether
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industrial Classification System (replacement to SICC)
NESHAP	National Emission Standards for Hazardous Air Pollutants
NMOC	Non-Methane Organic Compounds

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

APPENDIX A - ACRONYMS

NOx	Nitrogen Oxides
NNSR	Nonattainment New Source Review
NSPS	New Source Performance Standards
NSR	New Source Review
OEA	LDEQ Office of Environmental Assessment
OEC	LDEQ Office of Environmental Compliance
OES	LDEQ Office of Environmental Services
PM	Particulate Matter
PM10	Particulate Matter less than 10 microns in nominal diameter
PM2.5	Particulate Matter less than 2.5 microns in nominal diameter
ppm	parts per million
ppmv	parts per million by volume
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
RBLC	RACT-BACT-LAER Clearinghouse
RMP	Risk Management Plan (40 CFR 68)
SICC	Standard Industrial Classification Code
SIP	State Implementation Plan
SO2	Sulfur Dioxide
SOCMI	Synthetic Organic Chemical Manufacturing Industry
TAP	Toxic Air Pollutants (LAC 33:III.Chapter 51)
TOC	Total Organic Compounds
TPY	Tons Per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulate
µg/m3	Micrograms per Cubic Meter
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound
VOL	Volatile Organic Liquid
VRU	Vapor Recovery Unit

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

APPENDIX B – GLOSSARY

Best Available Control Technologies (BACT) – an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under this Part (Part III) which would be emitted from any proposed major stationary source or major modification which the administrative authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

CAM - Compliance Assurance Monitoring – A federal air regulation under 40 CFR Part 64.

Carbon Monoxide (CO) – (Carbon monoxide) a colorless, odorless gas produced by incomplete combustion of any carbonaceous (gasoline, natural gas, coal, oil, etc.) material.

Cooling Tower – A cooling system used in industry to cool hot water (by partial evaporation) before reusing it as a coolant.

Continuous Emission Monitoring System (CEMS) – The total combined equipment and systems required to continuously determine air contaminants and diluent gas concentrations and/or mass emission rate of a source effluent.

Cyclone – A control device that uses centrifugal force to separate particulate matter from the carrier gas stream.

Federally Enforceable Specific Condition – A federally enforceable specific condition written to limit the potential to Emit (PTE) of a source that is permanent, quantifiable, and practically enforceable. In order to meet these requirements, the draft permit containing the federally enforceable specific condition must be placed on public notice and include the following conditions:

- A clear statement of the operational limitation or condition which limits the source's potential to emit;
- Recordkeeping requirements related to the operational limitation or condition;
- A requirement that these records be made available for inspection by LDEQ personnel;
- A requirement to report for the previous calendar year.

Grandfathered Status – those facilities that were under actual construction or operation as of June 19, 1969, the signature date of the original Clean Air Act. These facilities are not required to obtain a permit. Facilities that are subject to Part 70 (Title V) requirements lose grandfathered status and must apply for a permit.

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

APPENDIX B – GLOSSARY

Lowest Achievable Emission Rate (LAER) – for any source, the more stringent rate of emissions based on the following:

a. the most stringent emissions limitation that is contained in the implementation plan of any state for such class or category of major stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or
b. the most stringent emissions limitation that is achieved in practice by such class or category of stationary source. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions units within the stationary source. In no event shall the application of this term permit a proposed new or modified major stationary source to emit any pollutant in excess of the amount allowable under an applicable new source standard of performance.

NESHAP – National Emission Standards for Hazardous Air Pollutants – Air emission standards for specific types of facilities, as outlined in 40 CFR Parts 61 through 63.

Maximum Achievable Control Technology (MACT) – the maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

NSPS – New Source Performance Standards – Air emission standards for specific types of facilities, as outlined in 40 CFR Part 60.

New Source Review (NSR) – a preconstruction review and permitting program applicable to new or modified major stationary sources of criteria air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C ("Prevention of Significant Deterioration of Air Quality") and D ("Nonattainment New Source Review").

Nonattainment New Source Review (NNSR) – a New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) set forth at 40 CFR Part 50. NNSR is designed to ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

Organic Compound – any compound of carbon and another element. Examples: methane (CH_4), ethane (C_2H_6), carbon disulfide (CS_2).

Part 70 Operating Permit – also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507.

STATEMENT OF BASIS

Consolidated Environmental Management Inc
Consolidated Environmental Management Inc - Nucor Steel Louisiana
Convent, St. James Parish, Louisiana
Agency Interest Number: 157847
Activity Numbers: PER20080001 / PER20080002
Proposed Title V Permit Number: 2560-00281-V0
Proposed Prevention of Significant Deterioration Permit Number: PSD-LA-740

APPENDIX B – GLOSSARY

PM_{10} – particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – a New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Selective Catalytic Reduction (SCR) – A non-combustion control technology that destroys NO_X by injecting a reducing agent (e.g., ammonia) into the flue gas that, in the presence of a catalyst (e.g., vanadium, titanium, or zeolite), converts NO_X into molecular nitrogen and water.

Sulfur Dioxide (SO_2) – An oxide of sulphur.

TAP – LDEQ acronym for toxic air pollutants regulated under LAC 33 Part III, Chapter 51, Tables 1 through 3.

"Top Down" Approach – An approach which requires use of the most stringent control technology found to be technically feasible and appropriate based on environmental, energy, economic, and cost impacts.

Title V permit – see Part 70 Operating Permit.

Volatile Organic Compound (VOC) – any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the Administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.